

Transfer Pricing

# Overhead Transfer Rate Review

For National Credit Union Administration

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# 1. Executive Summary

## 1.1. Purpose of Analysis

PricewaterhouseCoopers LLP ("PwC", "us" or "we") has been engaged by the National Credit Union Administration ("NCUA") to evaluate the Overhead Transfer Rate ("OTR") administered between the National Credit Union Administration Operating Fund ("NCUAOF") and the National Credit Union Share Insurance Fund ("NCUSIF"). The OTR is one of two sources of funding for NCUA's operating budget and is intended to transfer "insurance-related" expenses of NCUAOF to NCUSIF.<sup>1</sup>

This study and its conclusions are limited to the evaluation of the reasonableness and soundness of the methodology adopted by NCUA in the calculation and administration of the OTR given NCUA's dual role as regulator and insurer. This study does not express an opinion related to any issues that may be perceived with regards to NCUA's dual role as regulator and insurer, oversight or lack thereof of NCUA's budget or an interpretation of Congressional intent behind Title II of the Federal Credit Union Act of 1970 which established NCUSIF.

## 1.2. Overview of Analysis

To complete this study PwC undertook the following steps:

- 1) (b)(4)
- 2)
- 3)
- 4)
- 5)

## 1.3. Scope of Opinion

The services were performed, and this study prepared, at the direction of and in accordance with instructions provided by NCUA, exclusively for the sole benefit of and use by NCUA. The services and study are not intended for, nor may they be relied upon by any other party. This study and its contents may not be distributed to, discussed with, or otherwise disclosed to any third party without PwC's prior written consent. This study is not to be referred to or quoted, in whole or in part, in any

<sup>1</sup> The other source being the operating fees collected from federally chartered credit unions.

## Executive Summary

offering memorandum, prospectus, registration statement, public filing, loan or other agreement or document without our express written approval, which may require that we perform additional work.

PwC accepts no duty, obligation, liability or responsibility to any party, other than NCUA, with respect to the services and/or this study. PwC makes no representation regarding the sufficiency of the services for any purpose.

The underlying prospective financial information referred to in this study, unless otherwise referenced, was prepared and developed by NCUA management. PwC did not prepare any prospective financial information nor develop any assumptions therein. It is NCUA's responsibility to consider our comments and make its own decisions based on the information available to it. Because events and circumstances frequently do not occur as expected, there will usually be differences between predicted and actual results, and those differences may be material. We take no responsibility for the achievement of predicted results.

### 1.4. Summary of Conclusions

As part of the analysis conducted for this study, PwC performed interviews with personnel from NCUA and other stakeholders in the U.S. credit union system, including, but not limited to:

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In conjunction with the interviews, PwC obtained and studied the following documents that were made available to it by one or more of the parties mentioned above or located in the public domain to develop a comprehensive understanding of the history, constituent steps, assumptions and data sources associated with the current OTR Methodology:

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## Executive Summary

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Based on the interviews and the aforementioned material, PwC identified the following criteria for purposes of evaluating the current OTR Methodology and recommending possible refinements for NCUA's consideration:

- 1) (b)(4)

- 2)

- 3)

- 4)

The findings and conclusions of this study, which are based on an analysis of available facts and circumstances, are presented below.

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## 1.5. Organization of Study

This rest of the study is organized as follows:

- Section 2 - "Background": This section contains an overview of background information on which the study is based, including an overview of NCUA financing structure and the OTR.
- Section 3 - "Overview of Existing OTR Computation and Administration": This section contains an overview of the current OTR Methodology, with a discussion of the underlying steps, assumptions and data sources.
- Section 4 - "Methodology": This section contains a description of the methodology that PwC adopted for purposes of this study.
- Section 5 - "Economic Analysis": This section contains PwC's review of NCUA's existing OTR Methodology based on the identified evaluation criteria.
- Section 6 - "Conclusions": This section contains our conclusions.

## 2. Background

### 2.1. NCUA

NCUA is an independent federal agency that charters and supervises credit unions throughout the United States and its territories. In accordance with the Federal Credit Union Act introduced in 1934 by the Congress, NCUA aims to serve, protect and promote a safe, stable national system of cooperative financial institutions that encourage thrift and offer a source of credit for their members. NCUA also administers NCUSIF, which was created in 1970, under Section 1783 of the Federal Credit Union Act, as an insurance fund to provide insurance protection to all the account holders in all federally insured credit union.

Consequently, NCUA performs a dual role - it is the charterer and primary regulator of credits unions (specifically the federally chartered credit unions) and has broad safety-and-soundness regulatory powers for all credit unions (including the state chartered credit unions) whose deposits/credit shares are insured by NCUSIF. This dual role as a regulator and an insurer puts NCUA in a unique position that is unlike any other federal or state agency in the United States.

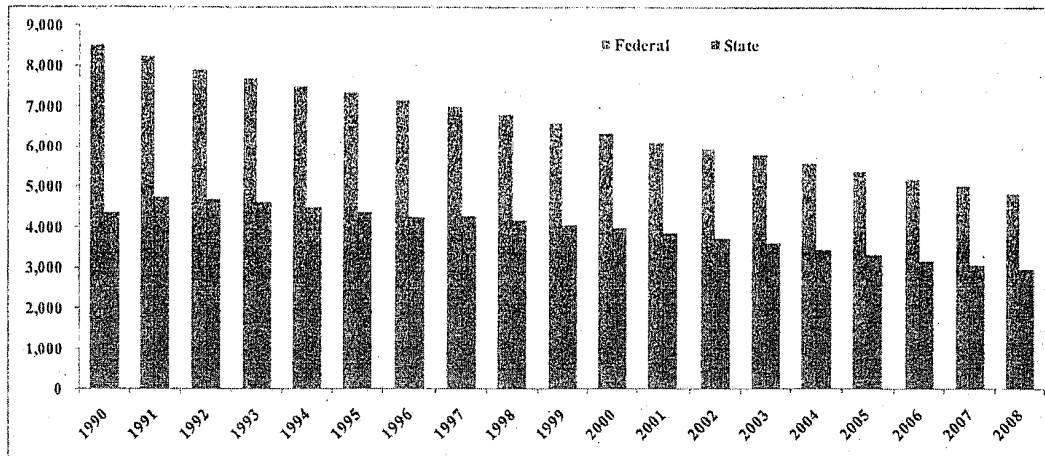
### 2.2. Credit Union System

A credit union is a cooperative financial institution that is owned and controlled by its members and operated for the purpose of promoting thrift, providing credit at reasonable rates, and providing other financial services to its members. In the United States, credit unions can be chartered by either the federal government through NCUA (i.e. the federal credit unions), or by the state governments through the SSAs (i.e. the state chartered credit unions). This system of having both federal and state chartered credit unions is called "dual chartering". Financial institutions in the United States have a long history of dual chartering; the three major categories of depository institutions, commercial banks, savings banks and credit unions, have federal and state chartering agencies. Dual chartering for commercial banks began in 1863; it was extended to savings and loan institutions in 1933, and with the announcement of the Federal Credit Union Act in 1934, dual chartering was extended to the credit union system.

The dual chartering system is viewed by many as a system of implicit competition between the two types of charters, with the states and federal regulatory bodies offering charters with different attributes and incentives. This is viewed as ensuring that the credit union industry is diverse and constantly evolving as competition for membership between the regulatory authorities promotes innovation. It also provides regulators incentive to increase efficiency and reduce their costs.

Over the last two decades, the number of credit unions, both federal and state chartered, has gone down, federal credit unions experiencing a larger decline in numbers than the state chartered credit unions. However, the proportion of federal credit unions in the system has been relatively stable across these years. Federal credit unions have accounted for about 62 percent of all credit unions while state chartered credit unions accounted for the remaining 38 percent over the 1990 - 2008 period. Figure 1 below illustrates the trend in the absolute number of credit unions, federal and state chartered, over the last two decades.

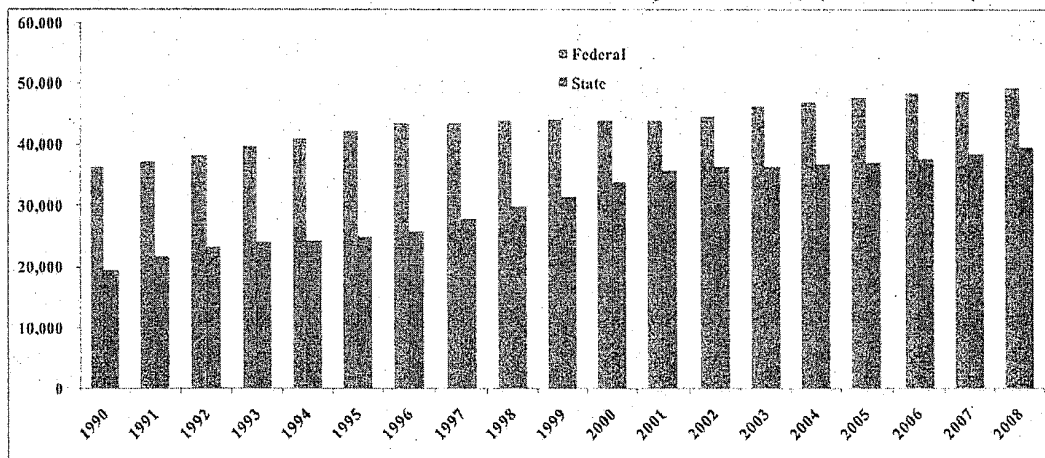
Figure 1: Number of federal and state chartered credit unions



Source: PwC analysis based on the 2010 Statistical Abstract, U.S. Census Bureau

During the same time period, the number of members enlisted under both federal and state chartered credit unions has increased steadily, with the increase in membership for state chartered credit unions outpacing the increase in federal credit unions. The state chartered credit unions share of membership has also increased during this time period from about 35 percent in 1990 to 45 percent in 2008, whereas that of the federally chartered credit unions has gone down from 65 percent in 1990 to 55 percent in 2008. Figure 2 below illustrates the trend in membership for federal and state chartered credit unions over the last two decades.

Figure 2: Federal and state chartered credit unions by membership (in thousands)

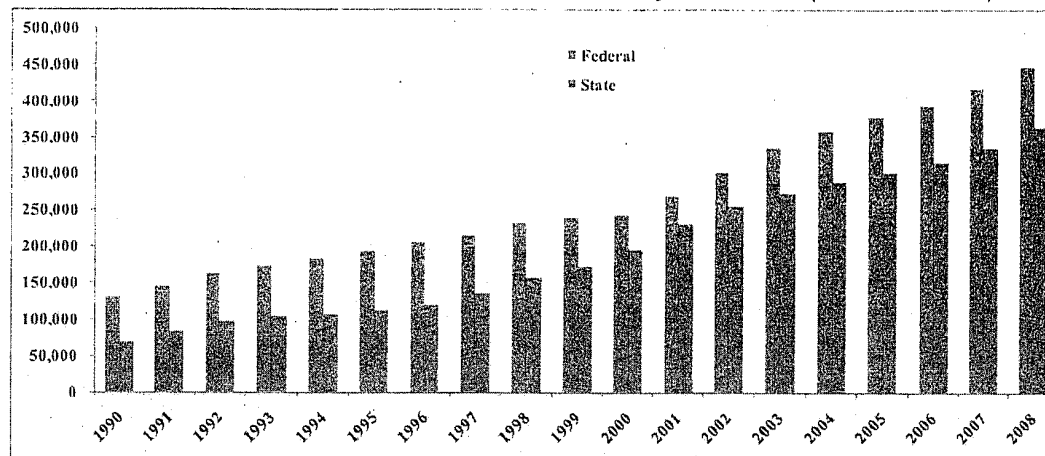


Source: PwC analysis based on the 2010 Statistical Abstract, U.S. Census Bureau

The total assets under management in both federal and state chartered credit unions have also increased over this period, with the increase in total assets for state chartered credit unions being slightly higher than that of the federal credit unions. The state chartered credit unions share of total assets increased during this time period from about 34 percent in 1990 to 45 percent in 2008, whereas that of the federally chartered ones has gone down from 66 percent in 1990 to 55 percent in 2008. Figure 3 below illustrates the trend in total assets under management at federal and state chartered credit unions, over the last two decades.



Figure 3: Federal and state chartered credit unions by total assets (in USD millions)



Source: PwC analysis based on the 2010 Statistical Abstract, U.S. Census Bureau

Similar to other sectors in the economy, the recent economic downturn over the last couple of years has adversely affected the credit union system. The biggest impact of the recession has been the losses that the credit unions have incurred from home mortgage delinquencies. The number of credit union closures has also increased, which has elevated the need for increased safety-and-soundness reviews from the regulatory agencies. As an insurer of federal insured credit unions, NCUSIF is obligated if a federal insured credit union fails to perform. Therefore, industry risks associated with the credit union business also affect NCUSIF. The federal insured credit unions with questionable business practices require NCUSIF to book a reserve for the identified and anticipated losses from credit unions' failures.<sup>3</sup> NCUSIF recorded a \$758.7 million reserve for losses as of December 31, 2009 and \$278.3 million as of December 31, 2008.<sup>4</sup>

### 2.3. NCUA Financing Structure

Under the Federal Credit Union Act of 1934, NCUAOF was created as a revolving fund in the United States Treasury under the management of the NCUA Board. This fund was intended to assist NCUA in providing administration and service to the federal credit union system and coordinating required supervisory involvement with the state charting authority for state-chartered credit unions insured by NCUSIF. With the backing of the full faith and credit of the U.S. government, NCUA administers the NCUSIF, which insures the savings of more than 90 million account holders in all federal credit unions and the substantial majority of state-charted credit unions.

NCUAOF is financed through two sources. First, all FCUs are assessed an annual fee that is based on the credit union's asset size as of December 31 of the prior year. This fee is designed to cover the costs of providing administration and services, as well as regulatory examinations to the federal credit union system. In addition, the Federal Credit Union Act authorizes NCUA to expend funds from the NCUSIF for administrative and other expenses related to the insurance activities performed for all federally insured credit unions, including the FCUs and FISCUs. These funds are transferred through the OTR and accounts for a substantial portion of funding for NCUAOF.

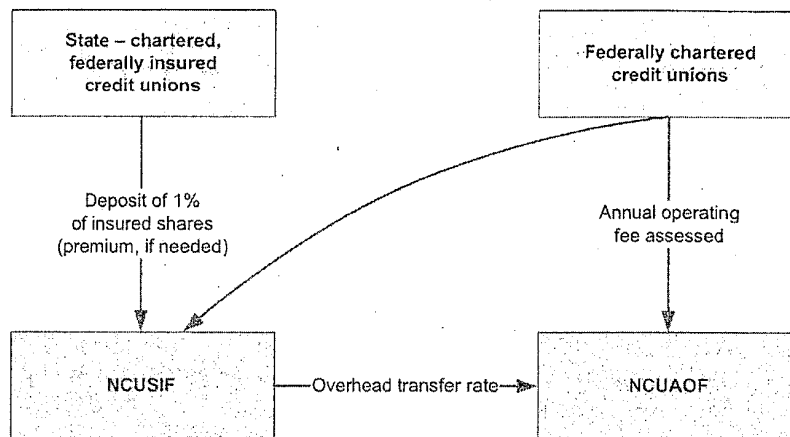
To implement the OTR, NCUA needs to allocate the operating costs between insurance (safety-and-soundness) and non-insurance (regulatory/compliance/legal issues) related activities that its staff performs. The NCUA Board reviews this OTR fee structure annually and, in order to meet the requirements of stakeholders, NCUA must evaluate the components and calculation methodology used to determine the OTR to provide greater equity and accuracy in allocating the NCUAOF

<sup>3</sup> Credit unions experiencing financial difficulty are identified through the NCUA supervision and examination process. NCUSIF then determines the estimated losses from such credit unions.

<sup>4</sup> NCUSIF Financial Statements for the year ended December 31, 2009.

overhead costs in accordance with the Federal Credit Union Act. Figure 4 below illustrates the financing sources of NCUSIF and NCUAOF.

Figure 4: NCUA financing sources



### 2.3.1. Overhead Transfer Rate

NCUA is both a regulator and an insurer. Shortly after the creation of NCUSIF, GAO, in 1972, identified the need to allocate costs between these two roles. Section 1783 of the Federal Credit Union Act depicts the following:

***"1783(a) There is hereby created in the Treasury of the United States a National Credit Union Share Insurance Fund which shall be used by the Board as a revolving fund for carrying out the purposes of this title. Money in the fund shall be available upon requisition by the Board, without fiscal year limitation, for making payments of insurance under section 207 of this title, for providing assistance and making expenditures under section 208 of this title in connection with the liquidation or threatened liquidation of insured credit unions, and for such administrative and other expenses incurred in carrying out the purposes of this title as it may determine to be proper." - Title II***

For this purpose, the Federal Credit Union Act authorizes NCUA to expend funds from NCUSIF for administrative and other expenses related to the insurance activities. This overhead transfer from NCUSIF for insurance services provides a substantial portion of funding for NCUAOF.

### 2.3.2 NCUA Insurance and Regulatory Activities

While NCUA's role as a regulator is limited to FCUs, its role as an insurer encompasses FCUs as well as FISCUs. NCUA performs its insurance and regulatory functions mainly through examination reviews of federally insured credit unions. With respect to FCUs, NCUA views these examination reviews serving the dual purpose of ensuring regulatory compliance as is consistent with its regulatory role as well as performing "safety-and-soundness" assessments of these credit unions in keeping with its role as the insurer. The examination reviews of FISCUs, which are conducted by NCUA in collaboration with the relevant SSAs, are limited purely to "safety-and-soundness" issues given that NCUA does not have regulatory purview over these credit unions. Thus, collectively through the examination reviews, NCUA assesses if a particular credit union is compliant with rules and regulations that apply to federally chartered credit unions and if the credit union poses risks to the NCUSIF.

In the course of their examination reviews, NCUA examiners focus on the following seven "risk areas":

- Credit Risk – the risk of non-repayment of loans and investments undertaken by the credit union;

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- Interest Rate Risk – the risk that the credit union fails to adequately manage changes in market interest rates to maintain an appropriate net interest margin;
- Liquidity Risk – the risk that the credit union will not be able to liquidate assets quickly and with minimal loss in value;
- Transaction Risk – the risk that fraud or errors will cause a loss to the credit union;
- Compliance Risk – the risk that the credit union will fail to comply with laws and regulations, prudent ethical standards, and contractual obligations;
- Strategic Risk – the risk that poor business decisions or improper implementation of strategic goals will reduce the credit union's earnings and net worth; and
- Reputation Risk – the risk that the credit union's public image will be tarnished due to improper actions on the part of officials, management, or staff.

The NCUA examiners as well as the state examiners employ a common automated platform - AIRES which stands for Automated Integrated Regulatory Examination Software - to collect, analyze and report information as part of their examination of credit unions. The insurance functions completed for both FCUs and FISCUs are similar in nature and are based on assessment of risk to NCUSIF, which entails evaluating the seven risk factors mentioned above.

### 2.3.3. OTR History

In 1972 GAO recommended that "insurance-related" and regulatory related costs be allocated between NCUA and NCUSIF. In the following years until 1980, various cost allocation methodologies were implemented by NCUA, including direct charges to NCUSIF for insurance expenses (e.g. cost of closing institutions, liquidation and merger costs, etc.), and time spent by examiners on supervising (as opposed to examining) institutions. Over the 1981 to 1984 period, the OTR ranged between 30 and 34 percent.

From 1985 through 1994, NCUA's Office of Examination and Insurance ("E&I") conducted annual studies to determine an appropriate factor for allocating NCUA's total operating expenses between the "insurance-related" and regulatory related activities. E&I designed examiner survey forms to determine the percent of time devoted to regulatory-related and "insurance-related" issues. During this period, E&I used the following process to gather empirical data:

- E&I had all NCUA examiners complete survey forms for each federal credit union examination completed during a certain time period;
- The survey forms captured the examiners' estimates of the hours spent on completing various examination scope components; and
- The examiners submitted the survey forms, and E&I compiled the data and developed a recommendation to the NCUA Board.

During this ten year period, the survey results on the percent of insurance-related hours varied between 50.1 percent and 60.4 percent; however, the OTR was maintained at 50 percent. From 1994 to 2000, based on E&I recommendations, the OTR was kept at 50 percent by NCUA. In 2000, the scope and methodology of the examiner survey was revised to include principal examiners, regional staff, and central office staff. The surveys resulted in "insurance-related" percentages for each group which resulted in a weighted average OTR of 66.72 percent.

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In 2002, the OTR was set at 62 percent. E&I implemented (b)(4) recommendations to automate the survey collection process, enhance guidance and training for examiners, collect surveys on an ongoing basis (beginning in June 2002), and establish a help-line and public folders to better

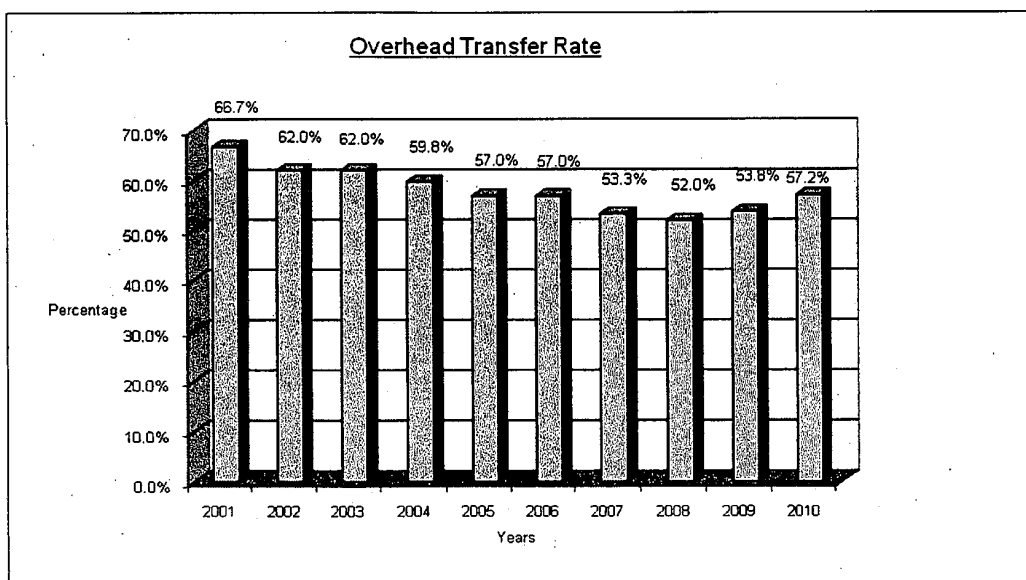
communicate issues. Automated survey collection began in June 2002. At year end, examiners had uploaded 167 surveys.

In November 2003, the NCUA Board used a refined method to calculate and assess the OTR. The new method is more comprehensive, with the formula expanded to take additional factors into account. The calculation methodology approved in 2003 has been applied by NCUA to calculate the OTR annually. The key components of the OTR calculation methodology include:

- The results of an annual Examination Time Survey performed by a randomly selected group of principal examiners;
- NCUA's resource workload budget;
- NCUA's financial budget;
- The distribution of insured assets between federally chartered and state chartered federally insured credit unions; and
- An estimate of the value of "insurance-related" work conducted by state regulators.

In the following years, the OTR amount declined gradually, with a value of 53.8 percent in 2009. In 2010, the OTR increased slightly to 57.2 percent. Figure 5 below shows the OTRs during the 2001 - 2010 period.

Figure 5: OTR rates in the 2000s



#### 2.3.4. Ramifications of the OTR

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The OTR is an expense that reduces NCUSIF's income, which in turn reduces the amount of funds available for dividends (or to offset premiums). NCUSIF pays all the federally insured credit unions dividends whenever its collective earnings, consisting of the one percent deposits received from the credit unions and the interest earnings from the assets net of costs, exceeds the deposits received by

## Background

more than 1.3 percent.<sup>5</sup> The dividend payment is allocated by FCUs and FICUs' insured share of assets. A higher OTR increases NCUSIF costs, which in turn potentially reduces the amount of dividends paid out. This reduction in pay out affects both FCUs and FISCUs uniformly.

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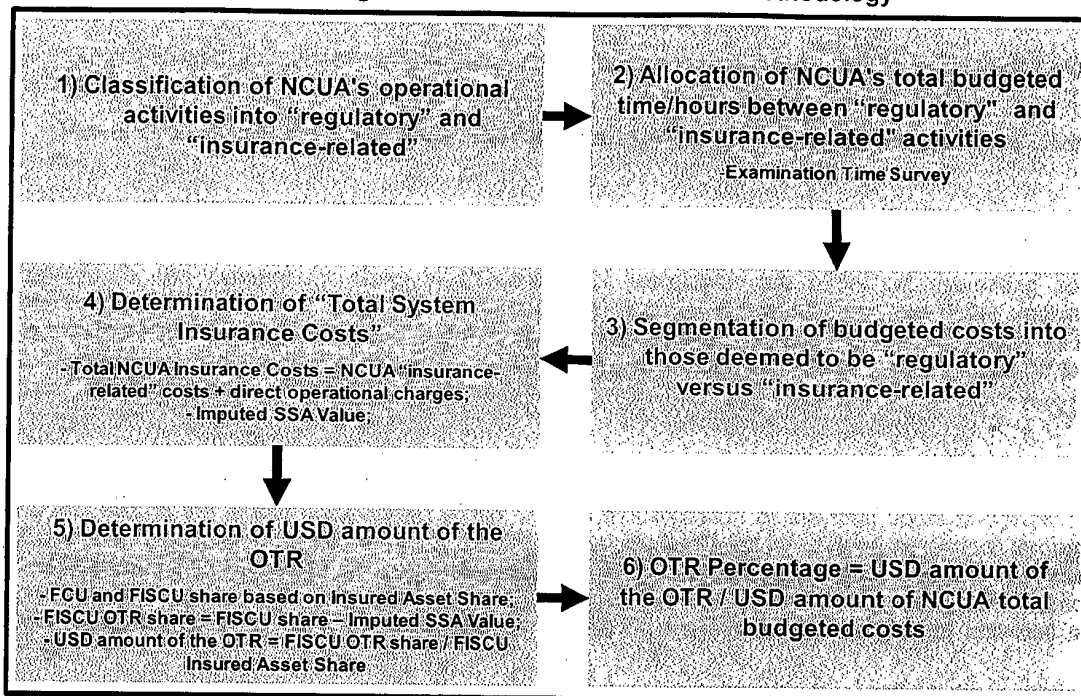
<sup>5</sup> The NCUA Board sets up the normal NCUSIF operating level at 1.3 percent and the operating level is typically reviewed by the NCUA Board at the end of each calendar year.

### 3. Overview of Existing OTR Computation and Administration

This section presents an overview of the current OTR Methodology, with a discussion of the underlying steps, assumptions and data sources. For expositional purposes, the key steps associated with the OTR Methodology are depicted in Figure 6 and listed below.

- 1) Classification of NCUA's operational activities into those deemed to be in keeping with its role as a regulator (i.e. "regulatory" activities) and other activities deemed to be associated with its role as an insurer (i.e. "insurance-related" activities).
- 2) Allocation of NCUA's total budgeted time/hours for the year between "insurance-related" and "regulatory" activities based on survey of hours spent by NCUA examiners over the preceding twelve-month cycle and other allocation factors.
- 3) Segmentation of budgeted costs (under different categories) based on the allocation percentage determined for workload hours for the associated categories of expenses as determined in the previous step and other allocation percentages for cost categories that are not covered by the survey into those deemed to be "insurance-related" versus "regulatory".
- 4) Determination of total estimated "system wide" costs of "insurance-related" activities (referred to herein as the "Total System Insurance Costs") as:
  - a. The sum of all costs classified as "insurance-related" in the steps above plus other direct operational charges (together referred to herein as the "Total NCUA Insurance Costs"); plus
  - b. An estimate of the costs associated with the "insurance-related" work performed by the SSAs for the benefit of FISCUs (the "Imputed SSA Value").
- 5) Determination of the U.S. Dollar ("USD") amount of the OTR through the following steps:
  - a. Allocation of the Total System Insurance Costs between FCUs and FISCUs based on the relative share of insured assets (referred to herein as the "Insured Asset Share") for each category of credit unions;
  - b. Subtraction of the Imputed SSA Value from the amount of the Total System Insurance Costs allocated to FISCUs to determine the USD amount of the OTR that should be "borne" by FISCUs (referred to herein as the "FISCU Share of OTR") using their Insured Asset Share as an allocation basis; and
  - c. Finally, division of FISCU Share of OTR by their Insured Asset Share to determine the total USD amount of the OTR that should collectively be "borne" by FCUs and FISCUs.
- 6) Division of the USD amount of the OTR by the USD amount of the total budgeted costs for NCUA to determine the applicable OTR (as a percentage)

Figure 6: Diagrammatic illustration of the OTR Methodology



The subsequent sections present the steps, inputs and other details associated with the computation of the OTR. These sections draw on the description of the OTR Methodology as contained in the NCUA Board Action Memorandum dated November 19, 2009.

### 3.1.1 NCUA's Definition of Insurance and Regulatory Activities

The starting point in the calculation of the OTR is the classification of NCUA's activities into two categories - the "insurance-related" activities are those that are in keeping with its role as an insurer of all federally insured credits units (i.e. FCUs and FISCUs) while the "regulatory" activities are those that are deemed by NCUA to be "driven by" its role as a regulator and charterer of credit unions (i.e. FCUs). The "insurance-related" functions mostly involve activities related to analyzing safety-and-soundness of the insured assets of all federally insured credit unions. All other "insurance-related" activities involve evaluating exposure to losses among these credit unions. The "insurance-related" functions are thus viewed by NCUA as including the following:

- Evaluating financial trends and Call Report data<sup>6</sup>;
- Determining the credit union's solvency position;
- Evaluating risks and potential costs, the credit union presents to NCUSIF (as and when applicable);
- Assessing management's efforts to protect earnings and net worth by identifying, evaluating, controlling, and monitoring internal and external risks; and
- Assessing management's abilities to develop strong policies and a reliable internal control structure.

Non-insurance or regulatory activities, specifically as they relate to examination or supervision contacts with FCUs, focus on issues of compliance with the laws and regulations that NCUA enforces.

<sup>6</sup> Call report refers to the reports that are submitted by federal insured credit unions to NCUA and contain data on a credit union's financial condition and other operating statistics.

Time incurred by NCUA on regulatory activities is associated with its efforts to review, report, or document areas that include, but are not limited to, the following:

- Compliance with consumer protection laws, NCUA rules and regulations, the Federal Credit Union Act and bylaws;
- Review of previously cited regulatory violations, areas of concern, and corrective actions taken; and
- Call report accuracy and timeliness.

Based on NCUA's definition/characterization of its activities (as "insurance-related" versus "regulatory"), the subsequent steps in NCUA's OTR calculation are aimed at estimating and determining the costs that it incurs specifically on "insurance-related" functions after making adjustments that affect the allocation of the "burden" of these costs among FCUs and FISCUs as is described below. Appendix A contains the actual figures associated with each of these steps for the 2010 OTR calculation.

### 3.1.2. Step 1 - Workload Program

The first step in the actual computation of the OTR is the allocation of the total hours budgeted by NCUA (the "Workload Budget Hours" or the "Workload Budget") for its various personnel through which it performs its insurance and regulatory functions into those that relate to its regulatory function and those that relate to its insurance function. This allocation is achieved by using two distinct procedures/mechanisms, each of which applies to one or more NCUA categories of activities or "Programs":

- The Examination Time Survey is the source of the allocation basis for "Core Programs" that cover "contacts" with credit unions related to their examination ("Federal Examination" code 10) or supervision ("Federal Supervision" code 22) which together account for the majority of the Workload Budget Hours;
- The allocation basis for NCUA's Workload Budget Hours associated with "Other Core Programs" and "Special Programs" is based on an assessment of the specific characteristics of these Programs and their overall purpose.

#### 3.1.2.1. Examination Time Survey

The key personnel with respect to NCUA's Federal Examination and Federal Supervision programs are the field examiners who conduct these examinations and reviews of the different credit unions. The primary responsibility for a particular credit union with respect to examination is assigned to one examiner known as the "Principal Examiner" ("PE"). All field examiners are organized into 63 groups referred to as "Supervisory Examiner" ("SE") groups that are spread across NCUA's five regions. The Examination Time Survey (referred to herein as "ETS") is a survey that E&I administers to a randomly selected SE group from each region.<sup>7</sup> The survey is completed by all PEs for each selected SE group from each region. The PEs are chosen based on their background and experience in specific fields. The PEs may be supported by other field examiners and subject matter experts in order to provide an accurate determination of the proportion of time devoted to "insurance-related" and regulatory activities.

As mentioned above, the ETS is used to determine the percentage of Workload Budget Hours related to regulatory and "insurance-related" tasks for the following two programs:

- Federal Examination (Code 10); and
- Federal Supervision (Code 22).

Since 2007, the ETS has been implemented through an online form on the AIRES server. Examiners receive training and detailed instructions on how to fill out the ETS. There are twelve categories of activities on the survey form, modelled on the risk based examination program. For each of these

<sup>7</sup> In June 2002, NCUA used a lottery system to select one SE from each region to participate in the survey. The survey responsibilities rotate on an annual basis to the next SE in alphabetical order.



categories, the examiner has to input the hours spent on regulatory and "insurance-related" activities. A full year's worth of survey results are used to calculate the percentage of hours devoted to regulatory (and insurance-related) activities for the Federal Examination and Federal Supervision Programs.

3.1.2.2. Percentage of Regulatory Time Spent on Other Core Programs and Special Programs

The time spent on regulatory activities for Other Core and Special Programs is determined based on a review of the characteristics of the Programs (i.e. the underlying purpose behind the Program). The Workload Budget Hours associated with Programs deemed to have primarily a regulatory purpose would all be treated as regulatory. Other Programs, such as the "State Exam and Supervision Program," have all their Workload Budget Hours treated as "insurance-related" based on fact that the NCUA does not have regulatory responsibilities with respect to FISCUs. Other Core and Special Programs that are deemed to have a "mixed role" have their associated Workload Budget Hours classified based on the percentage of regulatory versus "insurance-related" costs utilizing the results from the ETS for the Federal Examination Program. For the Small Credit Unions Program, the percent of time spent on regulatory activities was estimated through informal surveys to the department head.

3.1.2.3. Workload Budget

As described, NCUA's Workload Budget provides the budgeted hours for NCUA's activities associated with its Core and Special Programs. These hours make up the "productive" hours for NCUA's examiners and other specialized staff working on the core and special programs. Once the regulatory percentages are determined for all the Core and Special Programs, they are applied to the budgeted hours for each of these Programs as specified in the Workload Budget to determine the total hours characterized as "regulatory" (or conversely as "insurance-related"). Adding the hours thus classified together, the total hours classified as "regulatory" (or conversely as "insurance-related") are determined. Dividing this amount by the total budgeted hours for all Core and Special Programs is used to determine the weighted average percentage of Workload Budget Hours that can be characterized as "regulatory" (or conversely as "insurance-related"). This weighted percentage of total Program hours that is ascribed to NCUA's regulatory role is then treated as the "regulatory cost driver" (the "Regulatory Cost Driver") - i.e. the percentage of NCUA's total costs that stem from its regulatory role, used in subsequent steps of the OTR calculation.

3.1.3. Step 2 - Application of "Regulatory Cost Drivers" to NCUA Financial Budget

After determining the Regulatory Cost Driver which represents the weighted average percentage of NCUA's budgeted "productive" hours that are ascribed to its regulatory role, this percentage (along with certain other "cost drivers" discussed below) is applied to NCUA's budgeted costs for the relevant year under different categories/cost centers to determine the total amount of NCUA's costs that are classified as "Non-Insurance Costs". For 2009, the costs associated with the Core and Special Programs accounted for 58 percent of NCUA's total budgeted costs and the Regulatory Cost Driver as determined in Step 1 was directly applied to such costs. For the remaining costs, different cost drivers were assigned to determine the amount of Non-Insurance Costs. For instance, the cost center "Asset Management Assistance Center and Assistance Program" was assigned a cost driver of zero percent given that this represents the NCUSIF function that handles liquidation payouts, management of assets acquired from liquidation and recoveries for the NCUSIF and as such none of the associated costs can be classified as Non-Insurance Costs.

3.1.4. Step 3 - Calculation of NCUSIF Costs

The purpose of Step 2 was to determine the portion of NCUA's budgeted costs that is related to its regulatory role. The subtraction of this amount from NCUA's total budget yields the portion of NCUA's budget that is associated with its role of managing the NCUSIF. Under Step 3, the following amounts associated with the operational costs of providing NCUSIF deposit insurance are added to this budget figure in order to arrive at a measure of Total System Insurance Costs:

- Certain direct operational charges to NCUSIF; and
- The Imputed SSA Value that represents an estimate of the costs associated with the "insurance-related" work performed by the SSAs for the benefit of the FISCUs and is thus part of the total "system wide" operational costs of providing NCUSIF deposit insurance.

#### 3.1.4.1. Direct Operational Charges to NCUSIF

Direct operational charges to NCUSIF include costs associated with providing state examiners with equipment and training. These costs are not included in NCUA's total budgeted costs referenced in the previous steps.

#### 3.1.4.2. Imputed SSA Value

The incorporation of the Imputed SSA Value is driven by the need to account for the fact that not all "insurance-related" costs associated with NCUSIF (and thus "borne" by the credit unions) are incurred by NCUA. A portion of the total "system wide" cost of providing the NCUSIF federal share insurance is actually incurred by the SSAs that recover such costs through the operating fee charged to FISCUs. The estimation of the Imputed SSA Value and its incorporation in the OTR calculation is in recognition of the fact that absent these SSAs and the work performed by them, NCUA's "insurance-related" costs would be higher. This estimation involves the following four steps:

##### **Imputed SSA Value Step 1: Gross Workload**

The first step in this process is to determine, using an identical criteria as for FCUs, what level of examination time would be required to examine all FISCUs. To do this, first the examination hours NCUA actually expended on FCUs during the prior fiscal year are examined, by asset size and CAMEL rating. Next, this estimate of hours for FCUs by CAMEL rating/asset size is applied to the distribution of FISCUs across CAMEL/asset size category in order to arrive at an estimate of the total hours needed to perform the similar function for the FISCUs as is performed for the FCUs. These two steps together are used to arrive at an estimate of the exam hours needed if NCUA were to conduct all of the state examination work in a manner that is equivalent to what is employed for FCUs.

##### **Imputed SSA Value Step 2: Net Workload**

Step 1 calculates the hours needed if NCUA were to conduct examinations in all FISCUs. The same distribution of insurance to non-insurance ratio that is used for FCUs as determined in previous steps is applied to determine the total hours it would take NCUA to supervise FISCUs to meet its role as insurer.<sup>8</sup>

##### **Imputed SSA Value Step 3: Additional Staff Needed**

In this step, the additional hours computed in step 2 above is converted to the number of additional examiners required to accomplish these additional tasks. Using NCUA's workload budget and taking into consideration adjustments for various benefits, training, and administrative time, a productivity ratio and the resulting productive hours are calculated per full-time equivalent ("FTE") examiner. Using this productive hours per examiner and the net additional hours, the number of FTE examiners needed to accomplish the additional tasks are then computed.

In order to perform these incremental activities, additional staff and other resources (overhead) to manage and administer these additional examiners would be required (e.g. additional Supervisory Examiners, Regional Office Analysts, Human Resource Personnel, facilities, etc.). To estimate the incremental resources, NCUA's staffing patterns and organizational structure were reviewed and ratios of examiners to other positions based on ratios that are actually employed in running the agency were developed. The estimate of additional FTE examiners and staff are computed on this basis.

<sup>8</sup> In addition, adjustments for the deferred examination program, an adjustment for needed additional supervision and an adjustment for unnecessary state review are also made to calculate additional hours that NCUA would have spent if it were to examine and supervise, from an insurance perspective only, all FISCUs using the same insurance-based criteria applied to FCUs.

**Imputed SSA Value Step 4: Imputed Cost**

Finally, the average cost per FTE is used to compute the total cost of these incremental resources. The average cost used is based on the actual budget for regional offices and field staff and includes all costs, such as travel, training, facilities, consumables (e.g., supplies), in addition to salary and benefits, necessary to run a field program.

In addition, other adjustments are made to account for the potential impact of the additional workforce. With this additional staffing, there would be an impact on the workload of the Office of Human Resources ("OHR"). Thus, a proportionate increase in OHR's budget is projected. In addition to increases in certain costs, there would be some areas of savings to NCUA if it conducted all of the "insurance-related" FISCO work. There would be no need to pay for the training of state examiners, or providing SSAs with computers and other equipment. The final Imputed SSA Value is calculated by making adjustments for these costs and savings.

3.1.5. Step 4 - Allocation of NCUSIF Costs

The final step is the calculation of the OTR amount, both as a U.S. dollar ("USD") value and as a percentage of the total NCUA budgeted costs. In Step 3, the total "system wide" costs of providing the NCUSIF federal share insurance is determined that takes into account the "insurance-related" work performed by the SSAs. Once this total cost is calculated, it is allocated between FCUs and FISCOs using their respective Insured Asset Shares as a proportional allocation basis. Finally, since the SSAs actually provide part of the "insurance-related" services to FISCOs associated with NCUSIF, the FISCO share of the total "system wide" NCUSIF insurance cost is adjusted by deducting the Imputed SSA Value to determine the cost of NCUSIF insurance to FISCOs that is incurred specifically by NCUA.

Next, the USD amount of NCUA's costs associated with managing the NCUSIF to be absorbed by FISCOs through the OTR (as calculated previously) is divided by FISCOs' Insured Asset Share (i.e. proportional allocation basis). This yields the total USD amount of NCUA's costs of managing the NCUSIF that is "borne" by all insured credit unions through the OTR. For the 2010 calculations, this USD amount was \$115.0 million. Upon determination of the USD amount of the OTR, this value is divided by the total NCUA budget to calculate the OTR as a percentage of the NCUA budget. For the 2010 calculations, this value was calculated as 57.2 percent.

## 4. Methodology

### 4.1. Description of Approach

This study and its conclusions are based on facts and data presented to PwC by NCUA, which has verified to PwC the accuracy of these facts presented in this study. In keeping with our regular practice, PwC has not independently audited these representations as part of the preparation of this study, although PwC has determined that the facts as presented appear reasonable.

(b)(4)

## 5. Economic Analysis

This section presents a summary of PwC's review of NCUA's existing OTR Methodology based on the Evaluation Criteria identified above. The objective of the review was to arrive at a review of the OTR Methodology with respect to the specific Evaluation Criterion and to make recommendations if warranted by the review. The concerns and issues associated with the OTR Methodology that were considered under each specific Evaluation Criterion were validated by the key stakeholders interviewed by PwC as part of the review process.

(b)(4)

(b)(4)

#### 5.2.1. Implementation of ETS - Education and Training of Examiners

As discussed in the section above, the definition of what constitutes an "insurance-related" activity versus a "regulatory" activity is an important input in the overall OTR Methodology. Of significant importance is also how consistently this classification is applied throughout the implementation of ETS and other steps of the OTR calculation.

NCUA administers the ETS to a randomly selected SE group from each region.<sup>9</sup> The survey is completed by all PEs for each selected SE group from each region. The PEs are chosen based on their background and experience in specific fields. The PEs may be supported by other field examiners and subject matter experts in order to provide an accurate determination of the proportion of time devoted to insurance and non-insurance related activities. The survey responsibilities rotate

<sup>9</sup> NCUA's operations are divided into five regions, each containing between 9 and 18 SE groups.

on an annual basis to the next SE group in alphabetical order. Rotational sample selection guarantees that all PEs are eventually selected for participation in the survey.

For the implementation of ETS, NCUA holds a formal training session for survey participants and a subsequent teleconference for the survey participants, their supervisors, and a regional office analyst from each region. The formal training session provides detailed steps on how to fill out the ETS online. Online help that can be contacted via a specific and dedicated email address for survey participants to request help with the survey is maintained. The regional office analyst and the Office of the Chief Information Office customer services are also made available as resources to provide support on the survey. In addition, NCUA sets up a public folder to store information such as Frequently Asked Questions, summary reports and training information.

The ETS form provides twelve time categories, including planning/scope development, call report review, supervisory committee review, financial analysis, loan analysis, investment analysis, liquidity analysis, asset liability management, compliance, information system technology, management and examination report/JC/follow-up. For each time category, the time survey instruction provides detailed examples on activities covered and whether such activities should be characterized as "insurance-related" or "noninsurance-related". Based on our interview with an NCUA examiner, the ETS form and instruction is clear and easy to understand. By referencing the instructions, the examiner had no difficulties in allocating time between "insurance-related" activities and "noninsurance-related" ones.

(b)(4)

(b)(4)

5.2.2.2. Achieved Margin of Error

NCUA determines the number of credit unions selected in the survey based on a target margin of error of three percent at the 90, 95 and 99 percent confidence levels for the non-insurance workload percentage as estimated from the survey results.

(b)(4)



## Appendix A. 2010 OTR Calculation Steps

The following provides the 2010 OTR calculation steps from the NCUA Board Action Memorandum on 2010 OTR dated November 19, 2009.

### STEP 1 – Workload Program (2010)

Core Programs	2010 Workload Hours	Non-Insurance Percent	Non-Insurance Hours	Allocation Basis
Federal Examination	369,750	40%	149,342	Examiner time survey.
Federal Supervision	105,850	33%	34,645	Examiner time survey.
State Exam & Supv	130,784	0%	0	FISCU work is insurance-related.
State Exam Review	7,963	0%	0	FISCU work is insurance-related.
5300 Program	50,518	22%	11,139	FCU time uses examiner time survey. FISCU portion at all insurance-related.
<b>Total Core Program</b>	<b>664,865</b>	<b>n/a</b>	<b>195,125</b>	
Special Programs				
Fair Lending Exams	3,000	100%	3,000	Regulatory program.
Agricultural Lending	364	0%	0	NCUSIF risk management program.
FOM & Chartering	403	100%	403	Regulatory program.
RCMS	5,200	0%	0	NCUSIF risk management program.
RISOs	1,500	40%	606	Allocation based on % from time surveys.
Small Credit Unions	19,484	90%	17,629	For FCUs is a regulatory program. However, approximately 10% of the time in this program is related to work in FISCU.
CUSO Exams	1,500	0%	0	NCUSIF risk management program.
<b>Total Special Program</b>	<b>31,451</b>	<b>n/a</b>	<b>21,638</b>	
<b>Total Core &amp; Special Programs</b>	<b>696,316</b>	<b>n/a</b>	<b>216,763</b>	
Percent of Workload Programs devoted to NCUA's Non-Insurance Role			<b>31%</b>	

## STEP 2 – Financial Budget (2010)

<b>Cost Area 2010 Financial Budget</b>	<b>Dollar Budget (\$M)</b>	<b>Non- Insurance Percent</b>	<b>Non- Insurance Cost (\$M)</b>
<b>Divisions of Insurance:</b> Primarily non-insurance (regulatory) function involving chartering and fields of membership, net of work related to share insurance coverage for members and FISCUs.	\$5.1	71%	\$3.6
<b>All Other Region Costs:</b> Based on non-insurance related portion of core and special workload programs.	\$115.8	31%	\$36.0
<b>Asset Management Assistance Center and Assistance Program:</b> NCUSIF function that handles liquidation payouts, manages assets acquired from liquidations and assistance programs, and manages recoveries for the National Credit Union Share Insurance Fund.	\$3.5	0%	\$0.0
<b>Office of Small Credit Unions:</b> Primarily non-insurance related function to facilitate the expansion of credit union services. However, 10% FISCU participation rate.	\$5.3	90%	\$4.8
<b>Office of Corporate Credit Unions:</b> NCUSIF risk management function other than chartering, FOM, and mergers.	\$7.9	20%	\$1.6
<b>Office of Chief Financial Officer:</b> Based on non-insurance percent, net of staff time associated with NCUSIF accounting.	\$7.7	20%	\$1.5
<b>Office of Chief Information Officer:</b> Combination of support for state and federal examiners and staff related to hardware and software, as well as efforts for program development driven by Examination and Insurance.	\$13.7	20%	\$2.7
<b>Office of Human Resources:</b> Based on non-insurance percent, adjusted for Division of Training and Development time related to training for state examiners and staff.	\$10.7	20%	\$2.1
<b>All Other Costs:</b> Based on non-insurance portion of core and special workload programs. Includes NCUA board, Office of Inspector General, etc.	\$31.3	31%	\$9.7
<b>Total 2010 NCUA Budget</b>	<b>\$200.9</b>		<b>\$62.2</b>

NOTE: The totals may not reconcile due to the results of rounding.

**STEP 3 – Calculate NCUSIF Costs (2010)****Imputed NCUSIF Costs**

	Millions
2010 Financial Budget	\$200.9
Non-Insurance Costs (see Step 2)	- \$52.2
SSA Imputed Value	+ \$21.1
Direct Operational Charges to NCUSIF	+ \$1.6
<b>Total NCUSIF Imputed Costs</b>	<b>= \$161.3</b>

**STEP 4 – Allocation of NCUSIF Costs (2010)****Insured Shares Allocation**

	FCU	FISCU
Total Cost of Providing NCUSIF Insurance	\$161.3	\$161.3
Times Proportional Allocation Basis	54.6%	45.4%
<b>Equals Allocated Insurance Costs</b>	<b>\$88.1</b>	<b>\$73.3</b>

**Net of Imputed SSA Value**

	Millions
Total Allocated Insurance Costs - FISCUs	\$73.3
Minus SSA Insurance Work Imputed Value	\$21.1
<b>Equals Net Cost of NCUSIF Insurance – FISCUs</b>	<b>\$52.2</b>

**Dollar Amount of OTR**

	FISCUs	FCUs	Dollar Amt
FISCU Portion of NCUA Insurance Cost	\$52.2M	\$62.8M	115.0M
Divided by Percentage of Insured Shares	45.4%	54.6%	

**OTR as a Percent of Budget**

Dollar Amount of OTR	\$115.0M
Divided by NCUA Budget	\$200.9M
<b>Equals OTR</b>	<b>57.2%</b>

## Imputed SSA Value Step 1 – 2010

## Gross Workload

Table 1

Average Exam Time (Hours) FCU (Dec. 2009)	Assets < \$10M	\$10M - \$100M	\$100M - \$250M	\$250M - \$500M	> \$500M
CAMEL 1	46	78	144	193	310
CAMEL 2	51	89	168	208	322
CAMEL 3	56	109	202	278	326
CAMEL 4	67	167	333	351	381
CAMEL 5	96	167	399	351	381

Table 2

FISCUs (#) in Each Category (as of June 2009)	Assets < \$10M	\$10M - \$100M	\$100M - \$250M	\$250M - \$500M	> \$500M
CAMEL 1	128	232	56	30	63
CAMEL 2	604	740	157	77	82
CAMEL 3	260	234	75	20	22
CAMEL 4	39	41	19	9	14
CAMEL 5	0	2	1	0	1

Table 3

Total Hours (Table 1 cells x Table 2 cells)	Assets < \$10M	\$10M - \$100M	\$100M - \$250M	\$250M - \$500M	> \$500M
CAMEL 1	5,888	18,096	8,064	5,790	19,530
CAMEL 2	30,804	65,860	26,376	16,016	26,404
CAMEL 3	14,560	25,506	15,150	5,560	7,172
CAMEL 4	2,613	6,847	6,327	3,159	5,334
CAMEL 5	0	334	399	0	381
Total	53,865	116,643	56,316	30,525	58,821
Total Gross Exam Hours					316,170

## Imputed SSA Value Step 2 - 2010

## Net Workload

## Net of Insurance-Related Time

FISCUs	Hours
Gross FISCU Exam Hours	316,170
x Insurance Factor Based on Exam Time Survey	59.6%
= Total Insurance Hours w/out Risk-Based Scheduling	188,469

## Net of Risk-Based Scheduling

	Hours
Total Insurance Hours w/out Risk-Based Scheduling	188,469
- Not Eligible for Deferral Hours	181,084
= Eligible for Deferral	7,385
x Adjustment for Risk-Based Scheduling	66.7%
= Annual Eligible for Deferral Hours	2,462
+ Not Eligible for Deferral Hours	181,084
+ Adjustment for Additional Supervision	978
= Total FISCU Hours with Risk-Based Scheduling	186,986

## Net of NCUA Time in FISCUs

	Hours
Total FISCU Hours with Risk-Based Scheduling	186,986
+ 2010 Budgeted Supervision Hours	40,242
- 2010 Budgeted Insurance Review Hours	90,542
- 2010 Budgeted State Exam Report Review Hours	7,963
Total Additional FISCU Insurance Hours Needed	128,723

## Imputed SSA Value Step 3 - 2010

## Additional Staff Needed

## Examiner Productive Time

2010 Core and Special Workload Program Hours	696,316
/ Total 2010 Workload Program Hours	1,272,649
= Productivity Ratio	54.7%
Total Work Hours in a Year Per Full Time Equivalent (FTE)	2,080
x Productivity Ratio	54.7%
= Productive Hours per FTE Examiner	1,138

## Number of Examiners Needed

Net Additional FISCO Hours Needed	128,723
/ Productive Hours per FTE Examiner	1,138
= Number of Additional FTE Examiners Needed	113.1

## Total Additional Staff Needed

Additional Staff Needed	Ratio Examiners to Position	FTEs Per Position
Examiners	1/1	113.1
Supervisory Examiners	1/9	12.6
Analysts	1/15	7.5
Directors	1/25	4.5
Other Regional Staff	1/20	5.7
= Number of Additional FTEs Needed		143.4

## Imputed SSA Value Step 4 - 2010

## Imputed Cost

## Gross Cost

Total Cost of Regions (2010 Budget)	\$120,860,762
/ FTEs in Regions (2010 Budget)	816.25
= Per Regional FTE Cost	\$148,068
x Number of Additional FTEs Needed	143.4
= Cost of Additional Regional Positions	\$21.2M

## Net Cost

	<b>Millions</b>
Cost of Additional Regional Positions	\$21.2
+ Additional OHR Costs (12.9% of \$10.7 million budget)	\$1.4
- SSA Training and Equipment Cost	\$1.6
= Imputed SSA Value	\$21.1

## Appendix B. 2007, 2008 and 2009 Operating Fee to Insured Asset Share

Table B-1: 2007 Operating fee to Insured Asset Share

2007 (in million USD)	Total	FCUs	FISCUs
Operating fee		64.0	49.1
Amount of insured asset shares	560,832	308,917	251,915
Percent of insured asset shares		55.1%	44.9%
% Operating fee /Insured Asset Share		0.0207%	0.0195%

Table B-2: 2008 Operating fee to Insured Asset Share

2008 (in million USD)	Total	FCUs	FISCUs
Operating fee		72.4	64.0
Amount of insured asset shares	658,900	360,418	298,482
Percent of insured asset shares		54.7%	45.3%
% Operating fee /Insured Asset Share		0.0201%	0.0214%

Table B-3: 2009 Operating fee to Insured Asset Share

2009 (in million USD)	Total	FCUs	FISCUs
Operating fee		81.7	56.2
Amount of insured asset shares	724,800	395,741	329,059
Percent of insured asset shares		54.6%	45.4%
% Operating fee /Insured Asset Share		0.0206%	0.0171%

Table B-4: Average 2007 - 2009 Operating fee to Insured Asset Share

Average 2007 - 2009 (in million USD)	Total	FCUs	FISCUs
Operating fee		72.7	56.4
Amount of insured asset shares	648,177	355,025	293,152
Percent of insured asset shares		54.8%	45.2%
% Operating fee /Insured Asset Share		0.0205%	0.0192%

Source: PwC computation based on data provided by NCUA and data from 2007, 2008 and 2009 NCUA financial statements



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This study has been prepared for and only for National Credit Union Administration in accordance with the terms of our engagement letter dated August 4, 2010 and for no other purpose. We do not accept or assume any liability or duty of care for any other purpose or to any other person to whom this study is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.